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ABSTRACT

These procedural guidelines contain a "how to do it package" with sample forms, procedures, and techniques that a local vocational education program administrator can use to conduct a comprehensive needs assessment. It is divided into five modules, each covering a different phase of the process so that the local administrator can undertake the entire process or only certain portions. These phases are covered: population analysis (general, student, recent graduates), existing program analysis, resource analysis (facilities, personnel, financial), business and industry survey and job market analysis, and patron needs analysis (student survey, student followup, parent/guardian survey, adult/community survey, special needs groups). Following a section on program plan development, a form for identifying and prioritizing discrepancies is provided. The final section of the manual contains information on describing, interpreting, and presenting data, ideas, and concepts more simply and effectively to develop needs assessment for vocational programs. Appendixes include information on a time management plan, sampling procedures, and determining sample size. (YLB)

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PROCEDURAL GUIDELINES AND INSTRUMENTS
for
CONDUCTING A COMPREHENSIVE NEEDS ASSESSMENT
in
VOCATIONAL EDUCATION

Prepared for:
The West Virginia Department of Education
Bureau of Vocational, Technical and Adult Education

by
Research Coordinating Unit
for
Vocational Education

1982

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PROJECT

STAFF MEMBERS

Project Coordinator

Dr. Ben Dickens
Research Project Coordinator
Research Coordinating Unit
for Vocational Education
Marshall University
Huntington, West Virginia

Project Director

Dr. Roy Thomas, Director
Research Coordinating Unit
for Vocational Education
Marshall University
Huntington, West Virginia

Typing/Editing

Kristine Standifur
Research Coordinating Unit
for Vocational Education
Marshall University
Huntington, West Virginia

Laura Thomas
Research Coordinating Unit
for Vocational Education
Marshall University
Huntington, West Virginia

VOCATIONAL NEEDS ASSESSMENT

TASK FORCE MEMBERS

Will Edwards, Coordinator
Services to Business & Industry
State Department of Education
Bureau of Vocational, Technical
and Adult Education
1900 Washington Street East, Bldg. 6
Charleston, WV 25305

Richard Howard, Ph.D.
Director of Institutional Research
209 Parenton House
West Virginia University
Morgantown, WV 26506

Dr. Charles I. Jones
Professor and Chairman, Education
436 Harris Hall
Marshall University
Huntington, WV 25701

Robert P. Martin, Coordinator
Pre-Vocational Exploration
State Department of Education
Bureau of Vocational, Technical
and Adult Education
1900 Washington Street East, Bldg. 6
Charleston, WV 25305

Bill Mullett
Director of Guidance
Kanawha County Schools
200 Elizabeth Street
Charleston, WV 25311

Saundra Perry, Coordinator
Community Education
State Department of Education
Bureau of Vocational, Technical
and Adult Education
1900 Washington Street East, Bldg. 6
Charleston, WV 25305

Ron Redick, Ph.D.
Dept. of Curriculum and Instruction
604 E. Allen Hall
West Virginia University
Morgantown, WV 26506

Edna Rothwell, Regional Coordinator
Adult Basic Education
Lewis County Board of Education
P. O. Box 351
Weston, WV 26452

Adam Sponaugle, Director
Program Services
State Department of Education
Bureau of Vocational, Technical
and Adult Education
1900 Washington Street East, Bldg. 6
Charleston, WV 25305

Stanley Stewart
Vocational Director
John Marshall High School
1300 Wheeling Avenue
Glen Dale, WV 26038

Phil Vinciguerra
Director of Career and Continuing
Education
Southern WV Community College
Williamson, WV 25661

Bill Wilcox, Jr., Administrator
Adult Training and Retraining
State Department of Education
Bureau of Vocational, Technical
and Adult Education
1900 Washington Street East, Bldg. 6
Charleston, WV 25305

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PREFACE

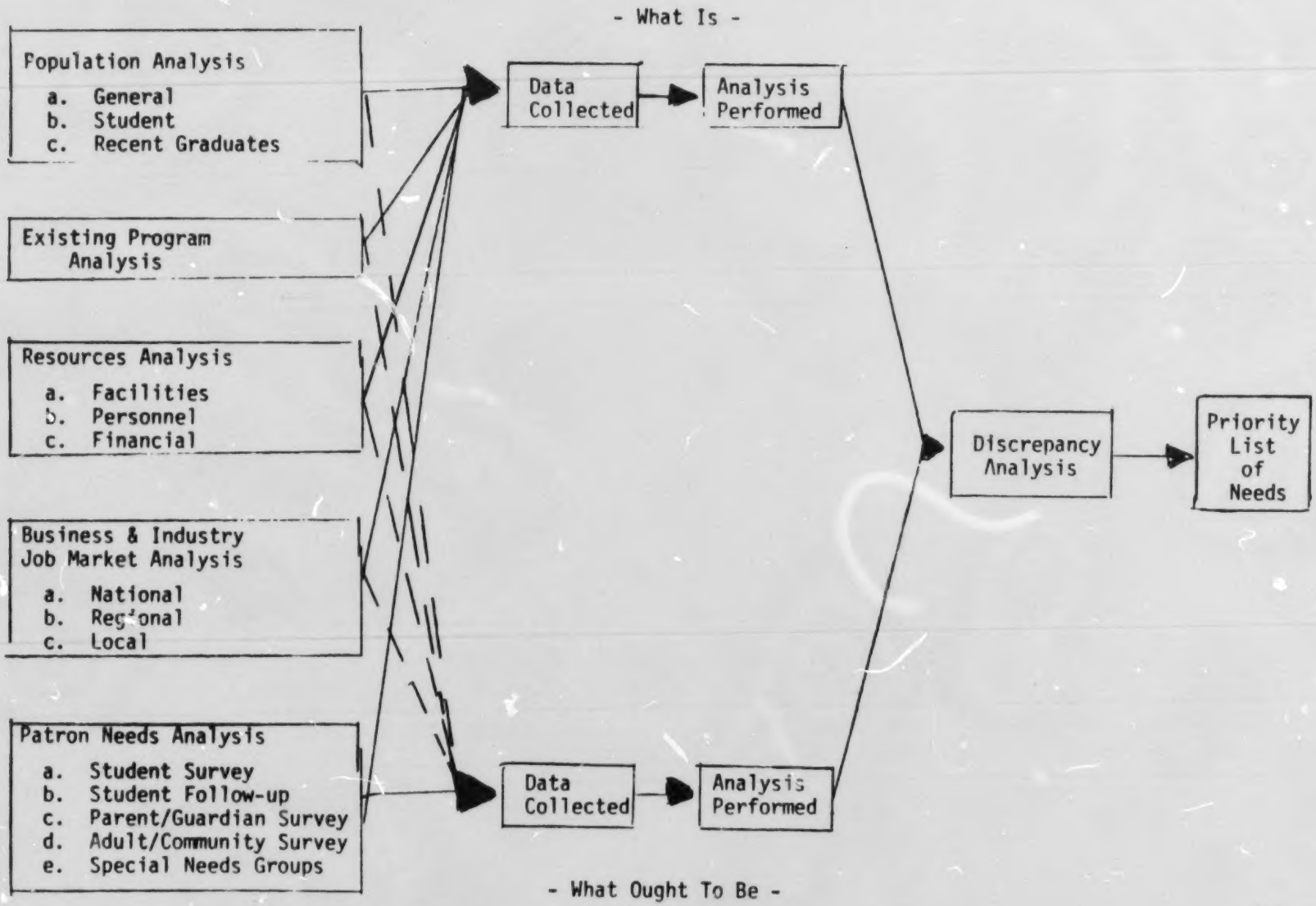
Needs assessment is a component of the planning and evaluation process. A needs assessment is, in fact, crucial if a meaningful and comprehensive program of vocational education is to be established.

The purpose of these procedural guidelines and instruments is to provide the local administrators with some direction to enable them to conduct a comprehensive needs assessment in their local areas. These guidelines provide suggested procedures and instruments. This comprehensive process will avoid collecting duplication of information at various times from the same populations and the information collected can be used to determine programs and needs at various levels for a variety of groups.

These procedural guidelines contain a "how to do it package" with sample forms, procedures and techniques that a local administrator could use in order to conduct a comprehensive needs assessment. It is divided into modules, each covering a different phase of the process so that the local administrator can undertake the entire process or only portions which meet the most critical needs.

Figure 1 - COMPREHENSIVE NEEDS ASSESSMENT MODEL

REVISED



POPULATION ANALYSIS

Population Analysis represents the local director's study of the characteristics of the people who live in the local area of concern. This is done from the viewpoint of the population as a whole and the student population in particular. Studying general population characteristics (such things as income and level of education) gives a partial picture of the climate in which vocational education exists in the area. If, for example, the general level of education in the area is relatively low then "selling" education as a whole may be generally more difficult, but "selling" vocational education may be relatively easier. Studying the characteristics of the student population (such things as number of graduates going on to work versus number going on for more schooling) can supplement the general information generated in "EXISTING PROGRAM ANALYSIS" (page 9). It will give a more detailed picture of how effectively vocational education has been meeting the needs of students and where changes may need to be made in the future.

GENERAL POPULATION ANALYSIS (PA-1)

The form (PA-1) displays a variety of data on the general population. Trends in population changes for the general population and various sub-groups are also noted. The best sources of information for completion of PA-1 are the census documents listed in West Virginia Data Sources of the "BUSINESS AND INDUSTRY" section. Other sources are school accreditation documents, chamber of commerce literature and the annual town reports.

INSTRUCTIONS FOR COMPLETING

PA-1

GENERAL POPULATION ANALYSIS

Column 1 - List the appropriate characteristics in your local area.

Examples are:

total population of the area
town(s) population
various age breakdowns - 14-19; 20-44; 45 and over
male - female
any minority groups
disadvantaged - below "poverty level"
handicapped
housing characteristics
level of education - 8 years, 8-12 years, 12 years
bilingual population

The 1970 Census Documents provide a number of other population characteristics which may be of interest.

Column 2 - For each group listed in the first column, give the number currently in that group (1970 census unless more recent data are available). Also give the percentage which that group represents of the total population (e.g., opposite "male" might be "49.3%" and opposite "female" might be "50.7%").

Column 3 - Give the same type of number and percentage information as in Column 2, but for the 1960 census.

Column 4 - Give a statement of the trend of change in that population group over the ten-year period. It might be "increase" or "stable" or "decrease".

Column 5 - Use this column to make any comments to expand on or clarify the data.

GENERAL POPULATION ANALYSIS

COMMUNITY _____ DATE _____

COLUMN 1	COLUMN 2		COLUMN 3		COLUMN 4	COLUMN 5
POPULATION CHARACTERISTICS	CURRENT		10 YEARS AGO		TRENDS	COMMENTS
	NUMBER	PERCENT	NUMBER	PERCENT		

STUDENT POPULATION ANALYSIS

The following form (PA-2, with instructions) collects a variety of data on the school-age population. For the current student body, data is collected on the number of students in each grade level, K-12; how many students may be expected to be in that group when it reaches grade 9, how many expect to enroll in college preparatory, vocational and general programs; and what levels of education do students expect to attain. The latter two categories apply only to those grades for which student interest survey data (see "PATRON NEEDS ANALYSIS") or other data is available.

For recent graduates, the following form (PA-3, with instructions) collects data from a follow-up survey of graduates (see "PATRON NEEDS ANALYSIS") or other sources to profile recent graduating classes in terms of what percentage of people have gone to work, have gone into the military, etc.

INSTRUCTIONS FOR COMPLETING

PA-2

ANALYSIS OF CURRENT STUDENT BODY

Column 1 - Already listed on the form are all grade levels.

Column 2 - Give the number of students currently enrolled in each grade in all schools in your area of concern.

Column 3 - Give the approximate number of students who would be expected to be in that group when it reaches the 9th grade. In other words, take the number currently enrolled, reduce it by the number you expect would drop out, move, etc., and increase it by the number you would expect to move into the area. This can only be an estimate, whether the student body (i.e., potential group for vocational education) is on the increase or decrease. The mobility and population change information generated previously on the general population will assist you in projecting the increase or decrease in the student body.

Column 4 - For those grades for which you have student-interest survey or other data, give the number and/or percentage of students, who expect to study in each of the three general areas in high school.

Column 5 - For those grades for which you have student-interest survey or other data, give the number and/or percentage of students who expect to attain each of the levels of education mentioned.

Column 6 - Use this column to make any comments to expand on or clarify the data.

ANALYSIS OF CURRENT STUDENT BODY PA-2

COMMUNITY_____ DATE_____

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5					COMMENTS
GRADE LEVEL	CURRENT NUMBER	NUMBER IN GRADE 9	EXPECTED AREA OF STUDY IN HIGH SCHOOL COLL. PREP/VOC./GENERAL	EXPECTED LEVEL OF ED. ATTAINMENT					
				PROFESS.	4yr Coll.	2yr COLL	HS	JRHS	
K									
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									

INSTRUCTIONS FOR COMPLETING

PA-3

ANALYSIS OF RECENT GRADUATES

Column 1 - List the year of each graduating class for which you have follow-up of graduates survey or other information.

Column 2 - Give the number and percentage of graduates from that year involved in each of the activities listed on the form.

Column 3 - Use this column to make any comments to expand on or clarify the data.

ANALYSIS OF RECENT GRADUATES

PA-3

COMMUNITY _____ DATE _____

COLUMN 1	COLUMN 2												COLUMN 3
YEAR GRADUATED	GOING ON TO WORK		GOING TO 4 YR. COLLEGE		GOING TO POST SECONDARY/TECH		SEEKING WORK BUT UNEMPLOYED		GOING INTO MILITARY		OTHER (MARRIAGE, TRAVEL, ETC.)		COMMENTS
	No.	%	NO.	%	NO.	%	NO.	%	NO.	%	NO.	%	

EXISTING PROGRAM ANALYSIS

Existing Program Analysis represents the local director's study of the extent to which vocational programs are meeting the needs of the people of the local area - at least in terms of numbers. Data is collected on each program, the number of enrollments, how many people are completing the program, what the characteristics of the program are, and how many teachers are involved. Other data is generated on the goals and aspirations of students through a Student Interest Survey and on how well vocational programs have served recent graduates by means of a Graduate Follow-up Survey (See Patron Needs Analysis, page 52).

Included in this section is a EPA-1 form for collecting the Existing Program Analysis information.

EXISTING PROGRAM ANALYSIS

PAST AND CURRENT PROGRAM INFORMATION

Purpose and Process: The purpose of this sub-section is to develop a picture of current program information; that is, data on the programs currently being offered, how many students in each, how many complete the program and how many teachers each program has. Data for the two previous years is also requested, so that current information might be seen as part of a trend. The trend can then be analyzed in the section of the manual entitled Program Plan Development, to see if the current direction is the desired one and to see if the trend, in terms of number of students completing each program is desirable when compared with Job Market Analysis.

Possible Problems: The only problem likely to occur here is in the area of "Other Completions", i. e. the number of people completing that kind of program in institutions other than the local secondary vocational center. Data of this type may be difficult to obtain in a comprehensive form, but that which is available (see below) should be listed and made part of the Completion Trends.

Sources of Data: All the data required for this section should be available at the local area vocational center, with the exception of "Other Completions". These types of data may be available through local area manpower planning boards, the Employment Security Commission, the State MDTA Coordinator, Community Action agencies or personal contracts.

INSTRUCTIONS

EPA - 1

PAST AND PRESENT PROGRAM INFORMATION

Column 1 - List each program currently being offered, as well as the applicable 6-digit U.S.O.E. code.

Column 2 - List the staffing (teacher equivalents) for each program for the 1978-1979, 1979-1980, and 1980-1981 school years. If completing this form in the future, cross out the years and write in the current years and previous two years (the same is true for all other columns). The current year's staffing pattern is the the most critical for use in later planning; however, past two years data is useful for comparing teacher equivalents with enrollments to get a teacher/pupil ratio pattern

Column 3 - List the September enrollments for each program for the current and the past two years.

Column 4 - List the completions for each program for the current and past two years. The current year figures may be actual or an estimate, depending upon when the form is completed. These completion figures are for the local area vocational center. Another copy or copies of this form may be completed to show the completions and trend for any sub-group such as "handicapped" or "adult". On the "group-line" name the group to which the copy of the form applies, i. e. "regular" or "adult" or "disadvantaged":, etc.

Column 5 - List the completions from institutions and centers other than the local vocational center. If the data is incomplete or a rough estimate, indicate such in the "Comments" column.

Column 6 - This column asks for a statement of the completions trends for each program listed. Using the information in Columns 4 and 5, write a "+" if the number of completions is increasing significantly from year to year, a "0" if the number of completions is relatively stable and a "-" if the number of completions is decreasing significantly from year to year. The definitions of "significantly" and "stable" are the prerogative of the planner but the following example may provide some guidelines:

	78-79	79-80	80-81	Completions Trend
Program A	10	20	35	+
Program B	10	12	14	0
Program C	20	15	8	-

The completion trends will be compared later with the employment trends shown in Job Market Analysis to see, for example, if there are any areas in which the completions trend is up and the employment trend is down.

Column 7 - Use this column to make any comments to expand or clarify the data.

DATA: PAST AND PRESENT PROGRAM INFORMATION

TASK: PROGRAM ANALYSIS

EPA-1

COMMUNITY: _____

DATE: _____

GROUP: _____

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7
PROGRAM AND USOE CODE	STAFFING TEACHER EQUIVALENTS	VOCATIONAL ENROLLMENTS	VOCATIONAL EDUCATION COMPLETIONS	OTHER COMPLETIONS	COMPLETIONS TRENDS + 0 -	COMMENTS

RESOURCES ANALYSIS

INTRODUCTION

While various sections of this instrument analyze needs in a variety of ways, this section is designed to identify the resources now available to help meet those needs. The following information should be accessible and could be categorized to provide an overall view and possibly a different perspective.

Three kinds of resources are documented:

1. Existing physical facilities available to vocational education
2. Professional staff available as teachers, counselors, and administrators
3. Federal, state, and local financial resources available for vocational programs

Conducting this analysis not only catalogs the resources already available but will probably identify some resources which may be overlooked.

This section has the following forms and instructions for resource analysis:

RA-1: Physical facilities inventory

RA-2: Professional staff inventory

RA-3: Financial resources inventory

FACILITIES

As part of the analysis of available resources, it is useful to develop a catalogue of physical facilities (buildings and rooms) and equipment. This information should be available at the state level. If it is not currently available, an RA-1 should be used as an inventory sheet.

The end result of this analysis should be a complete list of all available rooms, the size of the room, the major equipment in it (typewriters, machines, etc.) and the approximate value of the equipment.

An estimate of the percentage of total physical plant allocated to vocational programs should be noted. Also, an estimate of classroom and shop utilization should be calculated. This can be done by determining the percentage of time each classroom or shop is actually being used by students.

INSTRUCTIONS FOR COMPLETING

RA-1

FACILITIES

Column 1 - List each room currently being used or now available to vocational education. Include rooms away from the main building (e.g., borrowed space in another school). Include the library, cafeteria, study halls, labs, gyms, etc. General classrooms may be combined into one, labeled for example "6 general classrooms".

Column 2 - For each room or group of rooms in column 1, give the total number of square of floor space.

Column 3 - For each room or groups, list the various items of major or capital equipment. Equipment may be defined as anything having a life expectancy of over one year. It is not used or consumed. Examples are "one turret lathe" or "12 electric typewriters".

Column 4 - Give the combined estimated dollar value of all major equipment in the room.

Column 5 - Use this column for any comments to expand or clarify the data.

FACILITIES RA-1

COMMUNITY _____ DATE _____

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
ROOM	SQUARE FEET	MAJOR EQUIPMENT	ESTIMATED VALUE OF MAJOR EQUIPMENT	COMMENTS

17

PERSONNEL

Perhaps the most important part of the analysis of available resources is the developing of a catalogue of human resources (personnel) involved in vocational education in the local area. Form EPA-1 in the "EXISTING PROGRAM ANALYSIS" section provides the number of teachers or teacher equivalents involved in each major program area. It is important to augment this data with a cataloging of the people working in vocational education and a description of other experience and skills which they have which might allow them to become involved in different areas of vocational education to meet the ever-changing needs of students.

Many large companies maintain computerized "skills inventories" which help them to identify available human resources to solve a particular problem. Nothing so elaborate is needed here, but form RA-2 can be a valuable device to enable one to see the number of people and range of skills available, how long people have been in education, which have industry experience, etc.

As back-up information to RA-2 it might be useful to maintain a file of resumes for all professional staff members.

INSTRUCTIONS FOR COMPLETING

RA-2

PERSONNEL

Column 1 - List the name of each individual employed by the vocational education program.

Column 2 - Give the area of teaching or administrative acitivity in which the individual is currently working. If the individual has free time, indicate the amount.

Column 3 - List degrees held by this individual.

Column 4 - List experience the individual has in industry or business.

Column 5 - List areas in which the individual is certified to teach other than the one currently being taught.

Column 6 - Tell how long the individual has been teaching or working in his or her current area of vocational education.

Column 7 - List any other significant skills possessed by the individual, such as "speaks Spanish" or "can type 40 w.p.m.".

Column 8 - List significant training experiences not reflected by the degrees attained. This may be post-graduate work, seminars, workshops, etc.

Column 9 - Use this column for any comments to expand or clarify the data.

PERSONNEL

COMMUNITY_____ DATE_____

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9
NAME	AREA OF CURRENT WORK	DEGREES	ANY OTHER EXPERIENCE	OTHER AREA OF CERTIFICATE	NO. OF YEARS IN PRESENT AREA	OTHER SIGNIFICANT SKILLS	SIGNIFICANT TRAINING EXPERIENCE	COMMENTS

FINANCIAL RESOURCES

All aspects of the operation of vocational programs depend upon dollar funding. Our vocational programs will reflect quality and quantity in direct proportion to the availability of financial resources from local, state and federal levels.

A number of indicators of financial resources and/or level of effort are recognized by school finance commissions or accreditation agencies. The data with respect to these financial characteristics for your district can be obtained either from the local town report or from the annual State report on school finance.

Form RA-3 provides a format for listing these characteristics (some universal characteristics have already been suggested) for your school district. Insofar as data is available, these financial characteristics should be obtained for prior years so that trends can be identified.

INSTRUCTIONS FOR COMPLETING

RA-3

FINANCIAL RESOURCES

Column 1 - List the various financial characteristics which are to be considered as evidence of financial resources. A number of recognized financial characteristics have already been suggested.

Column 2 - Enter the figures which describe the financial characteristics of concern as it was two years ago.

Column 3 - Enter the figures which describe the financial characteristics of concern as of last year.

Column 4 - Enter the figures which describe the financial characteristics of concern for the current fiscal year.

Column 5 - Record comments on trends or unique aspects of your district's financial profile.

FINANCIAL RESOURCES

RA-3

COMMUNITY_____ DATE_____

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
FINANCIAL CHARACTERISTICS	TWO YEARS AGO	LAST YEAR	CURRENT YEAR	COMMENTS
PER PUPIL EXPENDITURE (NOT INCLUDING CAPITAL OUTLAY)				
ASSESSED VALUATION IN THE DISTRICT				
APPROXIMATE PERCENT ASSESSED VALUATION IS OF TRUE VALUATION				
ASSESSED VALUE PER YOUTH IN SECONDARY SCHOOLS				
PERCENTAGE OF SECONDARY FUNDS DERIVED FROM COMPONETS OF SCHOOL COSTS PAID BY:				
LOCAL				
STATE				
FEDERAL				
OTHER				
TOTAL BUDGET FOR EDUCATION				
TAX RATE				
AVERAGE DAILY ATTENDANCE				
VOCATIONAL EDUCATION BUDGET PAID BY: LOCAL				
STATE				
FEDERAL				
OTHER				

BUSINESS AND INDUSTRY SURVEY

AND JOB MARKET ANALYSIS

A Business and Industry Survey or Job Market Analysis represents the local director's study of the supply and demand aspects of the labor market as it relates to the local area of concern. If the purpose of vocational education is to prepare people for a meaningful place in the job market, studies must be made to determine the current job market pattern and how it may be expected to look in the future.

Specifically, the Business and Industry Survey or Job Market Analysis is designed to answer the question, "How many and for what kinds of jobs should we be training people?". To accomplish this the Job Market Analysis portion of the Comprehensive Needs Assessment process has been broken in two parts.

1. The National, Northeast and West Virginia Job Market Picture - this involves collecting as much data and information as possible from the national, regional and state level; displaying the data on the forms provided so it can be studied and factored into the needs assessment process. This is done for programs currently being offered to determine, if they should continue to be made available and, if so, at what enrollment level. This should also be done for employment in which programs are not currently available to determine whether or not new courses should be considered.
2. Local Manpower Picture - since, most vocational graduates find work in the local area, it is vital that a study be made of the local job market as it is presently and as it is projected for the future. The study consists of conducting a survey of businesses and industries to assess the kinds of jobs they offer, their current needs for skilled workers and their best estimates of future manpower needs. The

2. procedures to be followed, the forms used, sources of data and potential problems are described in the following sub-sections.

NATIONAL/NORTHEAST/WEST VIRGINIA

JOB MARKET PICTURE

Purpose and Process: The purpose of this sub-section is to develop a picture of the present and future job markets as seen at the National, Northeast and West Virginia levels. Data which has already been collected by other agencies can be compiled and displayed on the forms provided.

Possible Problems: The data available is often incomplete, sometimes inaccurate, coded and broken down inconsistently and represents, at best, a calculated guess about the future based on past trends. Nevertheless, it is essential to pull together the data that is available, display it in one place, temper it with other information and judgement and use it as part of the comprehensive needs assessment process. While definitive numbers are difficult, it is possible to discern trends in specific jobs or clusters. The unacceptable alternative to this procedure is, of course, to ignore the data or pass it off as useless.

Sources of Data: The documents which contain the data needed for this subsection are listed in the National Data Sources (p. 37) and the West Virginia Data Sources (p. 38). These documents may be obtained directly from the producer. Data from newspapers, professional journals, Manpower Magazine, and other sources can be added to the forms from time to time as part of a continuous needs assessment process.

Forms and

Instructions: Following are a list of the four forms.

JMA-1 for the National and Northeast jobs market data on Programs currently being offered at the local center.

JMA-2 for National and Northeast data on programs not offered, but which might be available in the future.

JMA-3 for West Virginia jobs market data on programs currently available at the local district level.

JMA-4 for West Virginia jobs market data on programs not currently available, but which may be offered in the future, depending upon what the data shows.

INSTRUCTIONS

JMA-1

NATIONAL AND NORTHEAST JOB MARKET DATA FOR CURRENT PROGRAMS

The purpose of JMA-1 is to provide a picture as complete as possible of the National and Regional job market currently and as projected for the future, as it relates to programs now currently being offered in the local community.

Column 1 - List each area of employment for which a program is currently preparing students; e.g., "carpentry", "auto mechanics", etc. It may be desirable to leave 2 or 3 lines for each area, as there may be data available from 2 or 3 sources.

Column 2 - List the sources of data used for each area of employment; e.g., Manpower Report of the President, etc. As mentioned, there may be 2, 3 or more sources of data for each area of employment with one line for each source. The sources of data are shown in National Data Sources (p. 37).

Column 3 - List the current level of employment mentioned in each data source for each area of employment; e.g., "25,400". For a given area, such as carpentry, the current level should be about the same in each data source.

Column 4 - List the projected annual level of demand for each employment area. This may be given in all or only some of the data sources listed for that area. The annual level of demand is the number of jobs open through expansion and replacement each year in these kinds of employment. This number is a projection based on part trends and may vary from source to source. However, all data should be listed so that at least a general trend can be noted for specific areas of employment. The annual level of demand should be listed, if

Column 4 - available, for the next year and five years hence (note the years at the top of the column). If that is not available, list the information that is given.

Column 5 - This column is, perhaps, the most important. The idea is to list the percentage increase expected in jobs, over the five year period. E.g., "+50%", meaning that a 50% increase will be expected over the course of the next five years in a given job. If such specific data is not available, use the data in the preceeding columns to discern a trend of expansion or contraction, and the degree relative to other areas of employment. For example, it might be noted that the area tends to "greatly increase", or "moderately increase", or "slightly increase", or "stable", or "slightly decrease", or "greatly decrease", etc.

Column 6 - Use this column to make any comments to expand or clarify the data.

DATA: NATIONAL AND NORTHEAST DATA FOR CURRENT PROGRAMS

TASK: JOB MARKET ANALYSIS

JMA-1

COMMUNITY: _____

DATE: _____

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4		COLUMN 5	COLUMN 6
AREA OF EMPLOYMENT DEMAND	SOURCE OF DATA	CURRENT LEVEL	PROJECTED ANNUAL LEVEL OF DEMAND 19	19	PERCENTAGE OF CHANGE/ OR TREND	COMMENTS

INSTRUCTIONS

JMA-2

NATIONAL AND NORTHEAST DATA FOR OTHER PROGRAMS

The purpose of JMA-2 is to provide a picture of the National and Northeast job markets as they compare to areas of employment where programs are not currently being offered, but where programs are being considered for the future.

The instructions for JMA-2 are the same as JMA-1. Data sources for JMA-2 are shown in the National Data Sources (page 37).

Column 1 - List each area of employment not currently offered, but on which it is desired to collect data; e.g. conservation officers. This list will be expanded as other programs are requested or considered over the next few years.

Column 2-6 - These columns are completed as indicated on instructions for JMA-1 (page 28).

DATA: NATIONAL AND NORTHEAST DATA FOR OTHER PROGRAMS

TASK: JOB MARKET ANALYSIS

JMA-2

COMMUNITY: _____

DATE: _____

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4		COLUMN 5	COLUMN 6
AREA OF EMPLOYMENT DEMAND	SOURCE OF DATA	CURRENT LEVEL	PROJECTED ANNUAL LEVEL OF DEMAND 19	19	PERCENTAGE OF CHANGE/ OR TREND	COMMENTS

INSTRUCTIONS

JMA-3

WEST VIRGINIA DATA FOR CURRENT PROGRAMS

The purpose of JMA-3 is to provide a picture of the West Virginia job market currently and as projected for the future as relates to programs now being offered in the local community.

The instructions for JMA-3 are the same as those for JMA-1 except that West Virginia data are used for each area of employment listed on JMA-3. Data sources for JMA-3 are shown in West Virginia Data Sources (page 38).

DATA: WEST VIRGINIA DATA FOR CURRENT PROGRAMS

TASK: JOB MARKET ANALYSIS

JMA-3

COMMUNITY: _____

DATE: _____

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4		COLUMN 5	COLUMN 6
AREA OF EMPLOYMENT DEMAND	SOURCE OF DATA	CURRENT LEVEL	PROJECTED ANNUAL LEVEL OF DEMAND 19	19	PERCENTAGE OF CHANGE/ OR TREND	COMMENTS

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INSTRUCTIONS

JMA-4

WEST VIRGINIA JOB MARKET DATA FOR OTHER PROGRAMS

The purpose of JMA-4 is to provide a picture of the West Virginia job market as it relates to areas of employment in which programs are not currently being offered in the local community, but where they are being considered or may be offered in the future.

Column 1 - List each area of employment, not currently offered, but on which it is desired to collect data; e.g. "dental hygienist". This list will be expanded, as other programs are requested or considered.

Column 2-6 - Same as JMA-1 with data sources shown in West Virginia Data Sources (page 38).

DATA: WEST VIRGINIA DATA FOR OTHER PROGRAMS TASK: _____ JMA-4

COMMUNITY: _____ DATE: _____

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4		COLUMN 5	COLUMN 6
AREA OF EMPLOYMENT DEMAND	SOURCE OF DATA	CURRENT LEVEL	PROJECTED ANNUAL LEVEL OF DEMAND 19	19	PERCENTAGE OF CHANGE/ OR TREND	COMMENTS

NATIONAL DATA SOURCES

PUBLICATION	TYPE OF INFORMATION
Occupational Outlook Handbook, Bureau of Labor Statistics, Department of Labor	Published every two years, the handbook explains the job outlook for many occupations.
Occupational Outlook Quarterly, Bureau of Labor Statistics Department of Labor	Updates the Occupational Outlook Handbook.
Tomorrow's Manpower Needs Bureau of Labor Statistics, Department of Labor	A 4-volume work which projects ratio of trained manpower to total employment. Data and matrix methods are provided to make state and local projections. Matrix, however, was developed on national labor pool.
Manpower Report of the President, U. S. Department of Labor	Annual publication reporting on manpower demands, resources, utilization, and training.
Annual Report of Vocational and Technical Education, U. S. Office of Education, Department of Health, Education and Welfare	Annual report contains data on graduates, enrollments, and expenditures in federally reimbursed programs.
Meeting Tomorrow's Manpower Needs, Bureau of Labor Statistics, U. S. Department of Labor	Provides national occupational employment projections and can be used by state and local planners. Techniques are illustrated to transform national data into state and local estimates.
Directory of Occupational Titles, Bureau of Labor Statistics, U. S. Department of Labor	Provides information on employment outlook, job descriptives, sources of employment, earnings, and training needed for each occupation listed.

WEST VIRGINIA DATA SOURCES*

PUBLICATION	TYPES OF INFORMATION
County and City Data Book U. S. Department of Commerce Bureau of Census Washington, D. C. 20233	Extension statistical information (census data) for each geographical area. Includes unemployment, labor force characteristics, number and percentage of employers by industry, payroll, etc.
County Business Patterns U. S. Department of Commerce Bureau of Census Washington, D. C. 20233	Presents employment and payroll statistics by county and by industry, and number of establishments by size and class.
Abbreviated Smaller Area Manpower Review, WV Department of Employment Security, Labor and Economic Research Section, Information Center, 112 California Avenue, Charleston, WV 25305	Short narrative of the labor market situation and one table summarizing employment and unemployment by industry for previous 12-month period for selected small areas.
Employment Service Automated Reporting System (ESARS), WV Department of Employment Security, Labor and Economic Research Section, Information Center, 112 California Avenue, Charleston, WV 25305	ESARS is a complex reporting system with input data applications and job orders filed in local employment service offices.
Industry and Occupational Projections to 1982, WV Department of Employment Security, Labor and Economic Research Section, Information Center, 112 California Avenue, Charleston, WV 25305	Using data collected from 1974-1977, this publication presents the following information by Occupational Employment Statistics (OES): 1) estimated employment in 1976; 2) projected employment to 1982; and 3) annual average job openings resulting both from expansion and replacement during the period 1976-1982.
Occupational-Industrial Projections to 1985, WV Department of Employment Security, Labor and Economic Research Section, Information Center, 112 California Avenue, Charleston, WV 25305	A comprehensive publication regarding current and projected employment in WV.

WEST VIRGINIA DATA SOURCES*

PUBLICATION	TYPE OF INFORMATION
State of West Virginia Labor Market Study 1979-1990, Private Industry Council of West Virginia, Inc., P. O. Box 3756, Charleston, WV 25337	This publication creates a data base and procedures for conducting labor market studies and preparing manpower projections by the eleven regional planning districts.

*WEST VIRGINIA DATA SOURCES were furnished by the West Virginia Occupational Information Coordinating Committee in a publication Information Sources Useful for Planning Manpower and Vocational Programs in West Virginia. For further information contact:

Executive Director
WVSOICC
1600½ Washington Street, East
Charleston, WV 25311

LOCAL SOURCES

CHAMBER OF COMMERCE

Often chambers of commerce have conducted local community surveys which address the employment and occupational patterns of the town.

PUBLIC UTILITY SOURCES

Often the water, sewer, power, or telephone companies have compiled extensive data on local population and manpower requirements.

CENSUS DATA

General Social and Economic Characteristics contains tables which give employment by occupation and employment by industry.

County Business Patterns contains the occupational and employment data for counties.

LOCAL MANPOWER DATA

In all planning documents requested at the state level, the local manpower supply and demand situation must be addressed. The local manpower picture is very important, yet it is most difficult to obtain accurate and timely data for local areas. Although there are some sources which may be useful for the local director of vocational education to explore, a local survey conducted by the district may provide more up-to-date and reliable data.

INSTRUCTIONS

LOCAL MANPOWER SURVEY

A comprehensive local manpower survey requires from one to three months to complete. The time variable depends upon the readiness of your operation to conduct such a survey, the number of employers to be contacted, the mode of data gathering, and the number of staff available to complete the work.

TASKS/PROCEDURES	TIPS OR ALTERNATIVES
1. Chart out all tasks to be completed, identify the person responsible, and describe the products resulting from each task. Finally, place these on a time line for project management.	See sample TIME MANAGEMENT PLAN in the Appendix.
2. Identify all employers (names, addresses, phone numbers) in your area of concern.	See sample instrument. Names of jobs should be changed to reflect local jobs.
3. Develop questionnaire to be used.	Mail can send to many with relatively low cost enclose self-addressed stamped envelope for return percentage of return is usually low (15-30%)
4. Determine mode of contact to obtain data.	Phone fastest technique, but personnel are required difficult for person responding to move around office to obtain certain data
	Interview good face-to-face public relations costly in time and money provides good experience for vocational teachers most reliabel data
	Perhaps a combination mail/interview survey would be effective. Interview your largest (top 10-20) employers but mail to others.

TASKS/PROCEDURES	TIPS OR ALTERNATIVES
5. Announce via media the purpose procedures, and timing of the local manpower survey.	
6. Write cover letter for the survey.	See example to follow.
7. Train interviewers, if required.	
8. Type the survey, stamp envelopes	
9. Mail survey.	
10. Follow up non-returned surveys with letters of encouragement.	Phone call may be more personal Have extra instruments to send to those who "did not get it", or "lost it".
11. Tabulate data.	
12. Enter results on form JMA-5.	

YOUR TOWN AREA VOCATIONAL EDUCATION CENTER

Your Town
Telephone

(Date)

Salutation:

The Your Town Area Vocational Education Center is conducting a comprehensive manpower survey of local business and industry. The purpose of the survey is to gather information and opinions from employers for use in considering new occupational programs and improving existing occupational education programs for youth and adults in the area.

We would appreciate your taking a short time from your busy schedule to complete and return this survey in the enclosed postage-paid envelope by (Date). Any suggestions or recommendations that you have pertaining to new programs or modification of existing programs will be most appreciated.

The data reported is confidential and will be used only for planning purposes. Should you have any questions about the study, please contact Mr. John Smith at the Vocational Center.

Sincerely yours,

John Smith, Director
Vocational Education

JS

Enclosures

BUSINESS AND INDUSTRY SURVEY

CONFIDENTIAL: The information reported in this survey will be used for vocational and occupational education planning purposes only. Individuals or agencies will not be identifiable from the specific information they provide. Information will be divulged in summary form only.

INTRODUCTION: The purpose of this questionnaire is to gather information and opinions from businesses, industries, governmental and professional employers for use in considering new vocational and occupational programs or for improving existing programs for youth and adults in your area. Please fill in the questionnaire as completely and accurately as possible.

1. Name of Firm _____ Date _____

2. Address _____ County _____

3. Main Function of Firm _____ Product _____

4. Person Responding _____ Position _____

5. Maximum number of employees during the past year _____

6. Are employees unionized? Yes___ No___ 7. Percentage of annual turnover _____

8. Place all employees into the following levels of employment:

	Current Employment	Anticipated in 5 Years		Current Employment	Anticipated in 5 Years
Management & Supervision	_____	_____	Clerical	_____	_____
			Technical	_____	_____
Unskilled	_____	_____	Skilled	_____	_____
Sales	_____	_____	Semi-Skilled	_____	_____

9. What kinds of jobs do you have difficulty in filling with properly qualified personnel? _____

_____

10. How do you hire employees? At the Gate _____ Through Unions _____
Employment Service _____ Through Schools _____
Through Employees _____ Into Labor Pool _____

11. In general, how are your employees trained or prepared for their current positions?

A. On-the-job training: Through an apprentice training program _____
On-the-job by the foreman _____
Through an organized training department _____
Other (specify) _____

B. Vocational Programs _____

12. What are the educational requirements for employment in your company:

High School Diploma _____ Associate Degree (2 Year) _____
Specific Post High School Courses _____ Bachelor Degree (4 Year) _____
Certificate of Proficiency (1 Year)_____ Other _____

13. Would part-time adult courses be of value in upgrading or training your employees? Yes ____ No ____ If yes, list courses which would benefit your employees. _____

14. Would representatives from your organization serve on committees with school officials to advise about the planning and operation of vocational programs? Yes ____ No ____

15. Would your organization accept students under a cooperative plan to provide occupational experience in preparation for employment? Yes ____ No ____

- -

From the list of Occupational Categories on the following page, please check the occupational areas in which you think there is a need for specialized vocational education classes which apply to your employment needs.

If the occupations you think there is a need for are not on the list, then list the occupations which would apply to your employment needs here. _____

_____

1. AGRICULTURAL OCCUPATIONS:
___1. Ornamental Horticulture
___2. Florist
___3. Nursery Worker
___4. Landscaper
___5. Agriculture Maintenance/repair
___6. Agriculture Production
___7. Agriculture Supplies/Services
___8. Forrester
___9. Other(Specify)_____

2. BUSINESS OCCUPATIONS:
___1. Accounting/Computing
___2. Bookkeeper
___3. Business Machine Repair
___4. Clerk-Typist
___5. Clerical
___6. Computer Consol Operator
___7. Computer Programmer
___8. Keypunch Operator
___9. Stenographer/Secretary
___10. Administration/Management
___11. Other (Specify)_____

3. CONSTRUCTION RELATED OCCUPATIONS:
___1. Building Maintenance
___2. Brick/Stonemason
___3. Carpenter
___4. Electrician
___5. Interior Decorator
___6. Heavy Equipment Operator
___7. Millworker & Cabinet Maker
___8. Painter
___9. Plumber
___10. Surveyor
___11. Other(Specify)_____

4. FOOD PROCESSING OCCUPATIONS:
___1. Baker
___2. Butcher/Meat Cutter
___3. Chef/Cook
___4. Dietitian
___5. Waitress
___6. Other(Specify)_____

5. HEALTH OCCUPATIONS:
___1. Dental Assistant
___2. Dental Hygienist
___3. Emergency Medical Technician
___4. Lab Technician
___5. Licensed Practical Nurse
___6. Medical Assistant
___7. Medical Secretary
___8. Nurse Assistant
___9. Radiology Technician
___10. Registered Nurse
___11. Surgical Technician
___12. X-Ray Technician
___13. Other(Specify)_____

6. MANUFACTURING OCCUPATIONS:
___1. Chemical Process Worker
___2. Furniture Making
___3. Heating & Cooling
___4. Machine Operator
___5. Machinist
___6. Sheet Metal Worker
___7. Tool & Die Maker
___8. Welder
___9. Other(Specify)_____

7. MECHANICAL OCCUPATIONS:
___1. Automotive Engineer
___2. Auto Mechanic
___3. Auto Parts
___4. Body & Fender Repair
___5. Diesel Mechanic
___6. Operation/Maintenance of Heavy Equip.
___7. Refrigeration Mechanic
___8. TV Service
___9. Other(Specify)_____

8. MINING OCCUPATIONS:
___1. Equipment Operator
___2. Mine Equipment Maintenance
___3. Miner
___4. Other(Specify)_____

9. SERVICE OCCUPATIONS:
___1. Beautician
___2. Care & Guidance of Children
___3. Fireman
___4. Hotel Management
___5. Policeman
___6. Retail & Wholesale Trades
___7. Sales
___8. Other(Specify)_____

10. TRANSPORTATION OCCUPATIONS:
___1. Airline Worker
___2. Bus Driver
___3. Railroad Worker
___4. Truck Driver
___5. Other(Specify)_____

11. ELECTRICITY & ELECTRONIC OCCUPATIONS:
___1. Appliance Repair
___2. Computer Maintenance
___3. Electronics
___4. Industrial Electricity
___5. Radio/TV Repair
___6. Other(Specify)_____

12. WAREHOUSE OCCUPATIONS:
___1. Forklift Operator
___2. Receiving Clerk
___3. Shipping Clerk
___4. Other(Specify)_____

13. GRAPHICS:
___1. Commercial Art
___2. Commercial Photography
___3. Drafting
___4. Printing
___5. Other(Specify)_____

SAMPLE NEWS RELEASE

MANPOWER SURVEY

Contact: George Baker Date

Phone: (603) 234-5678 FOR IMMEDIATE RELEASE

YOURTOWN, W. V. - ABC Senior High School will be conducting a local manpower survey during the week of _____. The survey is part of a state and Federally funded comprehensive needs assessment now underway at the school.

The project will tie together all aspects of vocational education needs assessment. The manpower survey is a major element of the project and will consist of a random sampling of ABC businessmen, who through direct mail questionnaires and personal interviews, will be asked their attitudes toward the school program, what the future job market demands are, and suggestions for improving the school-industry partnership.

The common framework developed by this study will enable communities to identify and discuss common problems. At the very least, the manpower survey will contribute towards the development of a more comprehensive vocational education program at the school.

##########

INSTRUCTIONS

JMA-5

LOCAL MANPOWER SURVEY RESULTS

The purpose of the JMA-5 is to display the data obtained from the Local Manpower Survey along with data obtained from other sources.

Column 1 - List each kind of job for which you have survey or other data. You may wish to leave two or three lines for each if you have a survey and other sources.

Column 2 - List the source of the data; e.g., "survey" or "chamber of commerce".

Column 3 - Give the current number of people employed in the job in the local area.

Column 4 - Give the projected demand for each job. If the source is the manpower survey, give under each of the three sub-columns (increase, same, decrease) the number of employers indicating each of the three responses. If the source is other than a survey, check off the box which indicated the trend shown by that data.

Column 5 - Give the current availability for each job, in the same way you showed projected demand in Column 4.

Column 6 - Use this column to make any comments to expand or clarify the data.

DATA: LOCAL MANPOWER SURVEY RESULTS DATE: _____ JMA-5

COMMUNITY: _____ NO. OF EMPLOYERS RESPONDING: _____

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4			COLUMN 5			COLUMN 6
AREA OF EMPLOYMENT DEMAND	SOURCE OF DATA	CURRENT LEVEL	PROJECTED DEMAND			CURRENT AVAILABILITY			COMMENTS
			INCREASE	SAME	DECREASE	SCARCE	ADEQUATE	SURPLUS	

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PULLING THE DATA TOGETHER

Having completed an extensive job market analysis by gathering and displaying manpower data from national, state and local sources, the five tables of manpower data may present a problem of comprehension. In fact, some tables may be more than one page in length.

In answer to this problem, the Job Market Summary Trends table has been developed. (JMA-6)

Column 1 - List those occupational education areas in which you currently offer programs. Also continue the list to indicate potential new programs.

Column 2 - Using JMA-1 and JMA-2 summarize the National Job Market outlook for the program areas, current, and future. Use narrative notes rather than numbers alone.

Column 3 - Using JMA-3 and JMA-4 summarize the West Virginia Job Market outlook for current and future areas.

Column 4 - Using JMA-5 summarize the Local Job Market outlook and future program program areas.

Column 5 - Make any comments necessary based on comparing the National-State-Local trends in each occupational area.

DATA: JOB MARKET SUMMARY TRENDS DATE: _____

COMMUNITY: _____ TASK: _____ JMA-6

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
AREA OF EMPLOYMENT DEMAND	NATIONAL OUTLOOK	WEST VIRGINIA OUTLOOK	LOCAL OUTLOOK	COMMENTS

INTRODUCTION

PATRON NEEDS ANALYSIS

Patron Needs Analysis represents the local director's study of the extent to which vocational programs are meeting the goals and aspirations of students through a Student Interest Survey; how well vocational programs have served recent graduates by means of a Graduate Follow-up Survey (or means of obtaining the necessary information); it provides responses from parents in relation to the occupational interests, guidance, and other needs their children are, or are not receiving; and it further inquires into the needs of adult members of the community as to the training they feel is necessary for new employment, job upgrading and/or enrichment.

The final section of the Patron Needs Analysis provides information concerning the use of the instruments with various other groups, i.e. handicapped, displaced homemaker, etc.

The Research Coordinating Unit has sample forms available for more indepth surveys in the following areas:

1. WVRCU-5 Student Vocational Interest Survey
2. WVRCU-6 Parent Interest Survey
3. WVRCU-7 Business and Industry Survey
   - Part B - Business Survey
   - Part C - Industry Survey
   - Part C - Hospital and Health Service Establishments
4. WVRCU-8 School Administrators Survey
5. WVRCU-9 Student Follow-up

STUDENT SURVEY

Purpose: Involvement of in-school students in providing ideas for vocational program planning is vital. Not only must new or expanded programs be considered in light of employer needs but also the interests of future students.

A student questionnaire which asks students to think about their future educational plans can provide useful data for planning efforts. Questions need not focus only on asking students to select potential occupations of interest but can be asked in a way which gives vocational guidance personnel more information on how to become responsive to student needs.

Before deciding that a special student questionnaire is required to give the needed data for your needs assessment project, check with the administration and guidance department for data which may already exist.

For example, often the guidance department has conducted interest testing (usually at the junior high level). The CAREER PLANNING PROFILE (CPP), KUDER PREFERENCE TEST, OHIO VOCATIONAL INTERESTS SURVEY or other instruments may have been used. Generally, group summary profiles and analyses are available for these tests.

The student survey questionnaire (sample) was developed to provide three types of information:

1. General descriptive information
2. Student occupational interests
3. Decision-making information

INSTRUCTIONS FOR CONDUCTING A STUDENT SURVEY

TASKS/PROCEDURES	PROCEDURAL TIPS
1. Decide what grade levels you wish to survey. It is not necessary to survey all grades or even all students within each grade.	Surveying grades 8, 10 and 12 can give a good spread of responses. (Also see sampling procedures, Marshall County Pilot Project).
2. What do you need to find out? Involve the guidance department, administration and academic departments to assist in selecting useful questions.	Be sure to get demographic data from students, e.g.: grade level sex major area of study ethnic background (if applicable)
3. Design the questionnaire (see sample)	
4. Arrange for administering the questionnaire.	Try to gather all students to be surveyed at one time: for example, during homeroom periods, during English classes, or large group sessions in the auditorium. Brief teachers and students on purpose of the questionnaire. Instruct teachers (½ hour) on specifics of the questionnaire and answer all questions. Give each teacher a ready-made packet with the correct number of questionnaires needed.
5. Administer questionnaire.	Be available during the administration to handle any last-minute questions or problems. Make every effort to THANK each teacher for his or her cooperation in the study.
6. Analyze data collected.	
7. Display data.	You may wish to use a blank copy of your survey form to display the tabulation of responses.

FORM

FOR

STUDENT SURVEY

We need to plan together for your future. In order to help you to the maximum extent we must have an idea of what your plans now are. This survey form will provide us with some worthwhile information toward that end.

1. Name_____ 2. Age_____ 3. Sex_____

4. Grade and School_____

5. Curriculum (enrolled in): (1) _____Vocational (2)_____General

(3)_____College Preparatory

Would you like to enroll in, or have had the opportunity to enroll in a pre-vocational program? _____Yes _____No

Agree	Don't Know	Disagree		(For each statement circle the number which best describes your agreement with the statement.)
3	2	1	(6)	I know how to collect information about occupations.
3	2	1	(7)	I know how and where to find information that would tell me what kind of future demand there will be for several occupations that interest me.
3	2	1	(8)	I can name some economic benefits and working conditions (salary, fringe benefits, travel requirements, etc.) related to several occupations.
3	2	1	(9)	I know how to decide which occupations are best suited to my interests and abilities.
3	2	1	(10)	I know what I must do to prepare for a job in the occupation of my choice.
3	2	1	(11)	I know what I must do to get a job in the occupation of my choice.
3	2	1	(12)	I received help from my parents (guardians) in planning my future career.
3	2	1	(13)	I feel the need for more vocational information or counseling to help me make better vocational plans.
3	2	1	(14)	I feel the school staff has given me help in planning my course of study.

From the list of Occupational Categories on the following page, please indicate your vocational interest by placing a "1" by your first choice, a "2" by your second choice, and a "3" by your third choice. Should you find no example in the the category which exactly represents the specific occupation of your choice, mark the space before "OTHER" and print in the occupation you have in mind.

Please think carefully and mark the survey form clearly. Before you make any mark on the form, it is suggested that you read through the entire section.

If the occupations in which you are interested are not shown, then list them here._____

1. AGRICULTURAL OCCUPATIONS:
___1. Ornamental Horticulture
___2. Florist
___3. Nursery Worker
___4. Landscaper
___5. Agriculture Maintenance/repair
___6. Agriculture Production
___7. Agriculture Supplies/Services
___8. Forrester
___9. Other(Specify)_____

2. BUSINESS OCCUPATIONS:
___1. Accounting/Computing
___2. Bookkeeper
___3. Business Machine Repair
___4. Clerk-Typist
___5. Clerical
___6. Computer Consol Operator
___7. Computer Programmer
___8. Keypunch Operator
___9. Stenographer/Secretary
___10. Administration/Management
___11. Other (Specify)_____

3. CONSTRUCTION RELATED OCCUPATIONS:
___1. Building Maintenance
___2. Brick/Stonemason
___3. Carpenter
___4. Electrician
___5. Interior Decorator
___6. Heavy Equipment Operator
___7. Millworker & Cabinet Maker
___8. Painter
___9. Plumber
___10. Surveyor
___11. Other(Specify)_____

4. FOOD PROCESSING OCCUPATIONS:
___1. Baker
___2. Butcher/Meat Cutter
___3. Chef/Cook
___4. Dietitian
___5. Waitress
___6. Other(Specify)_____

5. HEALTH OCCUPATIONS:
___1. Dental Assistant
___2. Dental Hygienist
___3. Emergency Medical Technician
___4. Lab Technician
___5. Licensed Practical Nurse
___6. Medical Assistant
___7. Medical Secretary
___8. Nurse Assistant
___9. Radiology Technician
___10. Registered Nurse
___11. Surgical Technician
___12. X-Ray Technician
___13. Other(Specify)_____

6. MANUFACTURING OCCUPATIONS:
___1. Chemical Process Worker
___2. Furniture Making
___3. Heating & Cooling
___4. Machine Operator
___5. Machinist
___6. Sheet Metal Worker
___7. Tool & Die Maker
___8. Welder
___9. Other(Specify)_____

7. MECHANICAL OCCUPATIONS:
___1. Automotive Engineer
___2. Auto Mechanic
___3. Auto Parts
___4. Body & Fender Repair
___5. Diesel Mechanic
___6. Operation/Maintenance of Heavy Equip.
___7. Refrigeration Mechanic
___8. TV Service
___9. Other(Specify)_____

8. MINING OCCUPATIONS:
___1. Equipment Operator
___2. Mine Equipment Maintenance
___3. Miner
___4. Other(Specify)_____

9. SERVICE OCCUPATIONS:
___1. Beautician
___2. Care & Guidance of Children
___3. Fireman
___4. Hotel Management
___5. Policeman
___6. Retail & Wholesale Trades
___7. Sales
___8. Other(Specify)_____

10. TRANSPORTATION OCCUPATIONS:
___1. Airline Worker
___2. Bus Driver
___3. Railroad Worker
___4. Truck Driver
___5. Other(Specify)_____

11. ELECTRICITY & ELECTRONIC OCCUPATIONS:
___1. Appliance Repair
___2. Computer Maintenance
___3. Electronics
___4. Industrial Electricity
___5. Radio/TV Repair
___6. Other(Specify)_____

12. WAREHOUSE OCCUPATIONS:
___1. Forklift Operator
___2. Receiving Clerk
___3. Shipping Clerk
___4. Other(Specify)_____

13. GRAPHICS:
___1. Commercial Art
___2. Commercial Photography
___3. Drafting
___4. Printing
___5. Other(Specify)_____

STUDENT FOLLOW-UP

Follow-up of vocational students should be an integral part of vocational education programs. Through knowledge gained in student follow-up studies educators are able to improve vocational education programs, as well as, to give further service to former students. Follow-up is a means of continuing the career development of former students and modifying career development patterns for students who follow.

Follow-up studies involve the systematic collection of data from former vocational students and present employers. The data is used in evaluating the effectiveness of student preparation for employment and in determining the relevance and adequacy of the vocational education program for the employment market.

A vocational student follow-up program may serve these specific purposes:

Provide job placement and job competency information indicating needed curriculum modifications and changes.

Provide student satisfaction and job skill information useful in evaluating vocational education instructional methods and procedures.

Provide descriptive information about various jobs useful in guiding students into a training program compatible with their interests and abilities.

Provide job training information which suggests instructional staff retraining, expansion, or reassignment.

Provide information about skill training requiring new or additional education and training.

Provide information necessary in determining the cost benefit of the vocational education program.

Provide information useful in evaluating the effectiveness of the vocational guidance program and to measure the demand for a special needs program.

The local vocational director should have available the current placement report (VEA Form Number 3) and the County Director should have a copy of the

State and county directory for student follow-up of previous years. In the event this information is not available, it can be acquired by contacting the:

Bureau of Vocational, Technical & Adult Education
State Capitol Complex
1900 East Washington Street
Building 6
Charleston, WV 25305

If a more in-depth student follow-up is desired, the sample forms can be obtained from the:

Research Coordinating Unit
for Vocational Education
Marshall University
Huntington, WV 25701

PARENTS/GUARDIANS

Since the home is critically important in the education of the young, the school needs the cooperation of the parents/guardians. It is essential that parents/guardians understand what the schools are trying to do in general and how this relates to their own children in particular.

Parents/guardians ideas related to meeting the occupational interest, guidance, and needs of their sons/daughters are extremely important and valuable in planning programs. The instrument designed to gather the responses from parents/guardians of students is patterned after the student and adult survey instruments and contains many common elements. This will allow comparisons between the different groups' perceptions of the same concept.

INSTRUCTIONS FOR CONDUCTING

A

PARENT/GUARDIAN SURVEY

TASKS/PROCEDURES	PROCEDURAL TIPS
1. Decide what type of information you need.	
2. Design the survey form (see example).	
3. Provide survey forms for the parents or guardians of students which were surveyed.	
4. Arrange for students to take the survey form home to their parents or guardians.	Instruct students to return forms the following day.

PARENT/GUARDIAN INTEREST SURVEY

The purpose of the questions listed in this form is to collect your opinions and answers regarding the kinds of occupational education opportunities and programs that you feel are needed in our vocational schools. We need your help in planning for the improvement and extension of educational opportunities for students in the vocational area. You can help in this planning by giving your opinions on this form regarding the occupational interest and needs of students. Your ideas related to meeting the occupational interests and needs of your sons/daughters are extremely important and valuable to us in planning school programs.

Directions: Please circle the number of the answer which you would like to give for each of the following questions or statements.

1. What is your relationship to your public school student?

   (1) Father or Stepfather
   (2) Mother or Stepmother
   (3) Guardian (male)
   (4) Guardian (female)

2. Your Occupation _____ 3. Spouse's Occupation _____

4. Number of Boys in family _____ Grade & School _____

5. Number of Girls in family _____ Grade & School _____

6. How much education do you want for your children? (Check One)

   (1) ___College (2) ___High School (3) ___Other(specify) _____

7. Would you like to have your children enroll in a vocational course as part of the regular high school program in order to prepare them for an occupation or career suited to their individual choice?

   (1) ___ Yes (2) ___ No

Agree	Don't Know	Disagree	(Please respond to each item by indicating how important the need is to your child.)
3	2	1	(8) I feel there is a need for more vocational information or counseling to help my child (children) make vocational plans.
3	2	1	(9) I feel the selection of vocational courses and programs available are adequate.
3	2	1	(10) I feel my child (children) know(s) how to collect information about occupations.
3	2	1	(11) I feel my child (children) know(s) what to do to prepare for the job in the occupation of their choice.
3	2	1	(12) I feel the vocational program in my county adequately prepares students for future employment.

- -

From the list of Occupational Categories on the following page, please indicate the specific occupations for which you would like to have classes available to your children in order to prepare them for a career. Please place a "1" by your first choice, a "2" by your second choice, and a "3" by your third choice. Should you find no example in the category which exactly represents the specific occupation of your choice, mark the space before "OTHER" and print in the occupation you have in mind.

If the occupations you are interested in for your children are not on the list, then list occupations in which you are interested for them here. _____

_____

_____

1. AGRICULTURAL OCCUPATIONS:
___1. Ornamental Horticulture
___2. Florist
___3. Nursery Worker
___4. Landscaper
___5. Agriculture Maintenance/repair
___6. Agriculture Production
___7. Agriculture Supplies/Services
___8. Forrester
___9. Other(Specify)_____

2. BUSINESS OCCUPATIONS:
___1. Accounting/Computing
___2. Bookkeeper
___3. Business Machine Repair
___4. Clerk-Typist
___5. Clerical
___6. Computer Consol Operator
___7. Computer Programmer
___8. Keypunch Operator
___9. Stenographer/Secretary
___10. Administration/Management
___11. Other (Specify)_____

3. CONSTRUCTION RELATED OCCUPATIONS:
___1. Building Maintenance
___2. Brick/Stonemason
___3. Carpenter
___4. Electrician
___5. Interior Decorator
___6. Heavy Equipment Operator
___7. Millworker & Cabinet Maker
___8. Painter
___9. Plumber
___10. Surveyor
___11. Other(Specify)_____

4. FOOD PROCESSING OCCUPATIONS:
___1. Baker
___2. Butcher/Meat Cutter
___3. Chef/Cook
___4. Dietitian
___5. Waitress
___6. Other(Specify)_____

5. HEALTH OCCUPATIONS:
___1. Dental Assistant
___2. Dental Hygienist
___3. Emergency Medical Technician
___4. Lab Technician
___5. Licensed Practical Nurse
___6. Medical Assistant
___7. Medical Secretary
___8. Nurse Assistant
___9. Radiology Technician
___10. Registered Nurse
___11. Surgical Technician
___12. X-Ray Technician
___13. Other(Specify)_____

6. MANUFACTURING OCCUPATIONS:
___1. Chemical Process Worker
___2. Furniture Making
___3. Heating & Cooling
___4. Machine Operator
___5. Machinist
___6. Sheet Metal Worker
___7. Tool & Die Maker
___8. Welder
___9. Other(Specify)_____

7. MECHANICAL OCCUPATIONS:
___1. Automotive Engineer
___2. Auto Mechanic
___3. Auto Parts
___4. Body & Fender Repair
___5. Diesel Mechanic
___6. Operation/Maintenance of Heavy Equip.
___7. Refrigeration Mechanic
___8. TV Service
___9. Other(Specify)_____

8. MINING OCCUPATIONS:
___1. Equipment Operator
___2. Mine Equipment Maintenance
___3. Miner
___4. Other(Specify)_____

9. SERVICE OCCUPATIONS:
___1. Beautician
___2. Care & Guidance of Children
___3. Fireman
___4. Hotel Management
___5. Policeman
___6. Retail & Wholesale Trades
___7. Sales
___8. Other(Specify)_____

10. TRANSPORTATION OCCUPATIONS:
___1. Airline Worker
___2. Bus Driver
___3. Railroad Worker
___4. Truck Driver
___5. Other(Specify)_____

11. ELECTRICITY & ELECTRONIC OCCUPATIONS:
___1. Appliance Repair
___2. Computer Maintenance
___3. Electronics
___4. Industrial Electricity
___5. Radio/TV Repair
___6. Other(Specify)_____

12. WAREHOUSE OCCUPATIONS:
___1. Forklift Operator
___2. Receiving Clerk
___3. Shipping Clerk
___4. Other(Specify)_____

13. GRAPHICS:
___1. Commercial Art
___2. Commercial Photography
___3. Drafting
___4. Printing
___5. Other(Specify)_____

ADULT/COMMUNITY SURVEY

As a part of the comprehensive needs assessment process, an adult/community survey should be completed. This provides the opportunity for the local director to inform the public of the needs assessment efforts, its purposes and expected outcomes. It also provides the opportunity to assess adult and community interest in vocational education and the perceived need of these individuals.

INSTRUCTIONS FOR CONDUCTING

AN

ADULT/COMMUNITY SURVEY

TASKS/PROCEDURES	PROCEDURAL TIPS
1. Design the adult/community survey document.	Keep it short and to the point (see example).
2. Decide mode of delivery.	Alternative modes: home via students mail (bulk) leave stacks of the survey in public buildings (post offices, banks, etc.) use form of newspaper advertisement use radio or TV for a verbal appeal
3. Present and deliver adult/community survey.	

ADULT/COMMUNITY SURVEY

For further information, Please Contact: _____

_____

Dear

The information we are seeking from you on this survey will provide us a basis on which to formulate an adult community education program. Interest areas that you check in no way obligate you to sign up for, register for, or teach any course.

Your opinions regarding our schools and community life are important to us, and we request your viewpoints. However, all these questions are offered to you on an optional basis. Your time and cooperation are greatly appreciated. It is not necessary that you sign your name.

- -

1. Please indicate the number of people living in your household in the following age group by circling the appropriate number. (include yourself)

Age Group	Circle Number
(1) 0-5 years	0 1 2 3 4
(2) 6-15 years	0 1 2 3 4
(3) 16-21 years	0 1 2 3 4
(4) 22-25 years	0 1 2 3 4
(5) 26-35 years	0 1 2 3 4
(6) 36-45 years	0 1 2 3 4
(7) 46-55 years	0 1 2 3 4
(8) 56 +	0 1 2 3 4

2. What is your occupation? Put M for male in the household and F for female.

(1) ___Professional, managerial, administrative
(2) ___Clerical & Sales (5) ___Craftsmen & foremen (8) ___ Retired
(3) ___Operatives (6) ___Laborer
(4) ___Unemployed (7) ___Housewife

3. Highest grade reached: Circle One.

(1) Adult Male 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
(2) Adult Female 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

4. Will you need child-care services to attend activities? ___Yes ___No

5. Will you need transportation to attend activities? ___Yes ___No

6. What days would be best for you to attend activities?

(1) ___Sunday (3) ___Tuesday (5) ___Thursday (7)___ Saturday
(2) ___Monday (4) ___Wednesday (6) ___Friday

7. What time of day would be best for you to attend activities?

(1) ___9 A.M.-12 Noon (2) ___12 Noon-2 P.M. (3)___ 2 P.M.-4 P.M.
(4) ___4 P.M.-6 P.M. (5)___ 6 P.M.-8 P.M. (6) ___8 P.M.-9 P.M.

For each statement circle the number which best describes your agreement with the statement.

Agree	Don't Know	Disagree		
3	2	1	(1)	I know how to collect information about occupations.
3	2	1	(2)	I know how and where to find information that would tell me what kind of future demand there will be for several occupations that interest me.
3	2	1	(3)	I can name some economic benefits and working conditions (salary, fringe benefits, travel requirements, etc.) related to several occupations.
3	2	1	(4)	I know how to decide which occupations are best suited to my interests and abilities.
3	2	1	(5)	I know what I must do to prepare for a job in the occupation of my choice.
3	2	1	(6)	I know what I must do to get a job in the occupation of my choice.
3	2	1	(7)	I feel the need for more vocational information or counseling to help me make better vocational plans.
3	2	1	(8)	I need educational or vocational assistance in developing new job skills.
3	2	1	(9)	I need educational or vocational assistance in retraining in my present vocation.

- -

From the list of Occupational Categories on the following page, please indicate your vocational interest by placing a "1" by your first choice, a "2" by your second choice, and a "3" by your third choice. Should you find no example in the category which exactly represents the specific occupation of your choice, mark the space before "OTHER" and print in the occupation you have in mind.

Please think carefully and mark the Survey Form clearly. Before you make any mark on the form following, it is suggested that you read through the entire section.

If occupations you are interested in are not on the list, then list occupations in which you are interested below:

Other Occupations: _____

_____

1. AGRICULTURAL OCCUPATIONS:
___1. Ornamental Horticulture
___2. Florist
___3. Nursery Worker
___4. Landscaper
___5. Agriculture Maintenance/repair
___6. Agriculture Production
___7. Agriculture Supplies/Services
___8. Forrester
___9. Other(Specify)_____

2. BUSINESS OCCUPATIONS:
___1. Accounting/Computing
___2. Bookkeeper
___3. Business Machine Repair
___4. Clerk-Typist
___5. Clerical
___6. Computer Consol Operator
___7. Computer Programmer
___8. Keypunch Operator
___9. Stenographer/Secretary
___10. Administration/Management
___11. Other (Specify)_____

3. CONSTRUCTION RELATED OCCUPATIONS:
___1. Building Maintenance
___2. Brick/Stonemason
___3. Carpenter
___4. Electrician
___5. Interior Decorator
___6. Heavy Equipment Operator
___7. Millworker & Cabinet Maker
___8. Painter
___9. Plumber
___10. Surveyor
___11. Other(Specify)_____

4. FOOD PROCESSING OCCUPATIONS:
___1. Baker
___2. Butcher/Meat Cutter
___3. Chef/Cook
___4. Dietitian
___5. Waitress
___6. Other(Specify)_____

5. HEALTH OCCUPATIONS:
___1. Dental Assistant
___2. Dental Hygienist
___3. Emergency Medical Technician
___4. Lab Technician
___5. Licensed Practical Nurse
___6. Medical Assistant
___7. Medical Secretary
___8. Nurse Assistant
___9. Radiology Technician
___10. Registered Nurse
___11. Surgical Technician
___12. X-Ray Technician
___13. Other(Specify)_____

6. MANUFACTURING OCCUPATIONS:
___1. Chemical Process Worker
___2. Furniture Making
___3. Heating & Cooling
___4. Machine Operator
___5. Machinist
___6. Sheet Metal Worker
___7. Tool & Die Maker
___8. Welder
___9. Other(Specify)_____

7. MECHANICAL OCCUPATIONS:
___1. Automotive Engineer
___2. Auto Mechanic
___3. Auto Parts
___4. Body & Fender Repair
___5. Diesel Mechanic
___6. Operation/Maintenance of Heavy Equip.
___7. Refrigeration Mechanic
___8. TV Service
___9. Other(Specify)_____

8. MINING OCCUPATIONS:
___1. Equipment Operator
___2. Mine Equipment Maintenance
___3. Miner
___4. Other(Specify)_____

9. SERVICE OCCUPATIONS:
___1. Beautician
___2. Care & Guidance of Children
___3. Fireman
___4. Hotel Management
___5. Policeman
___6. Retail & Wholesale Trades
___7. Sales
___8. Other(Specify)_____

10. TRANSPORTATION OCCUPATIONS:
___1. Airline Worker
___2. Bus Driver
___3. Railroad Worker
___4. Truck Driver
___5. Other(Specify)_____

11. ELECTRICITY & ELECTRONIC OCCUPATIONS:
___1. Appliance Repair
___2. Computer Maintenance
___3. Electronics
___4. Industrial Electricity
___5. Radio/TV Repair
___6. Other(Specify)_____

12. WAREHOUSE OCCUPATIONS:
___1. Forklift Operator
___2. Receiving Clerk
___3. Shipping Clerk
___4. Other(Specify)_____

13. GRAPHICS:
___1. Commercial Art
___2. Commercial Photography
___3. Drafting
___4. Printing
___5. Other(Specify)_____

Please check any of the following that you would be interested in taking:

RECREATION AND SPORT

___1. Bridge
___2. Chess
___3. Modern Dancing
___4. Square Dancing
___5. Tennis
___6. Golf
___7. Softball
___8. Volleyball
___9. Basketball
__10. Fishing
__11. Slimnastics
__12. Men's Calisthenics
__13. Wildlife
__14. Ballet.

DO IT YOURSELF

___ 1. Plumbing
___ 2. Home Repairs
___ 3. Landscaping
___ 4. Lawn Care
___ 5. Gardening
___ 6. Upholstery
___ 7. Fashion Design
___ 8. Small Engine Repair
___ 9. Auto Care for Women
___10. Interior Decorating
___11. Furniture Refinishing & Repair
___12. Gourmet Cooking
___13. Cake Decorating
___14. Sewing

ENRICHMENT COURSES

___ 1. Reading Improvement
___ 2. Speed Reading
___ 3. Creative Writing
___ 4. Family Finance
___ 5. Estate Planning
___ 6. Metric System
___ 7. Jewelry Making
___ 8. Oil Painting
___ 9. Basic Design in Art
___10. Découpage
___11. Quilting
___12. Leather Craft
___13. Stitchery
___14. Knitting
___15. Crocheting
___16. Guitar
___17. Wood Working
___18. Theatre
___19. Flower Arranging
___20. Macramé
___21. Needlepoint
___22. Choral Group
___23. Great Books
___24. Foreign Language

HUMAN RELATIONS

___ 1. Single Parenting
___ 2. Parent Effectiveness
___ 3. First Aid
___ 4. Seminar for Parents of Adolescents
___ 5. Pre-Natal and Post-Natal Care for Baby

Please list other courses or activities not included:_____

_____

Would you enroll in Adult Basic Education Classes to improve your:

(1) Reading Skills ___yes ___no
(2) Writing Skills ___yes ___no
(3) Math Skills ___yes ___no

Would you like help in preparing for the GED (high school equivalent certificate)

_____yes
_____no

Thank you for participating

SPECIAL NEEDS GROUPS

According to the LEA Program Planning Guide "the local advisory council must have an appropriate representation of both sexes and an appropriate representation of the racial and ethnic minorities found in the program areas, schools, community or region which the advisory council serves." The LEA Form 2 can provide approximate percentages of ethnic groups in program area, school, community or the region.

The LEA Form 4 in Program Planning Guide provides information on the school population by age and/or educational level; the number of students with special needs, disadvantaged, handicapped, limited English proficiency, previous homemakers now seeking employment, single heads of households who lack adequate skills, and persons seeking work in nontraditional occupations.

The survey forms, instruments or questionnaires in this handbook can be utilized in assessing the populations identified on LEA Forms 2 and 4 but some consideration must be given to identification of the special groups. Handicapped and disadvantaged individuals are usually identified by special education within the school system. In-school or in-program identification of a student potentially in need of special services may come from either of at least two different directions. A student currently receiving special education services may be identified as a potential candidate for vocational education services or a student currently enrolled in a vocational education program may be identified as a possible candidate for special education services.

One method of identification of the displaced homemakers would be the local newspaper. Death notices and legal section will provide names of individuals who might fall into this category.

Special and in-depth forms have been developed for these populations and copies may be obtained by contacting the:

Research Coordinating Unit
for Vocational Education
Marshall University
Huntington, WV 25701

PROGRAM PLAN DEVELOPMENT

AN OVERVIEW

This Procedural Manual has been devoted primarily to the subject of how to conduct a comprehensive needs assessment at the local level.

A needs assessment that does not result in a plan is nothing more than an academic exercise. Volumes have been written on the subject of educational planning, and a complete description of how to plan would take a handbook that is much too voluminous. However, this section will give some basic techniques for taking all or some parts of the needs assessment and turning it into a plan.

The various types of analyses set forth in this manual have described "what is" and "what ought to be" in a variety of ways and from a variety of viewpoints. The first part of the planning process then is to compare the "what is" with the "what ought to be" by means of a DISCREPANCY ANALYSIS to find out where gaps exist. Once the gaps have been identified, they can be prioritized. This is necessary because resources are always limited and it is impossible to close all the gaps, at least on a short-range basis. But it is possible to develop a plan to close those "gaps" or discrepancies which are most important and can be most realistically tackled.

Attached is a form, PPD-1, designed to aid in identifying and prioritizing discrepancies. It is deceptively simple-looking. Actually it takes a great deal of effort to bring together the information generated in the various analysis sections, sort it out and judge its importance. But the payoff in improved decision making and program plan development will be well worth the effort.

Once PPD-1 has been done as thoroughly as possible, then a program plan can be developed. Program Planning is something with which local directors are familiar (annual local plan), and expanded efforts in the areas of program planning and budgeting will be undertaken in the future. The local director can use the information generated on PPD-1 to decide which programs to undertake, and to develop a program budget and design an implementation plan.

DISCREPANCY ANALYSIS

Discrepancy Analysis requires that two "bits" of information which are related be compared to see if they are in agreement or disagreement with each other. For instance, if job market figures indicate increasing opportunities for those having agri-business skills and a school's enrollments and completions in this area are decreasing - then a discrepancy exists. A number of factors can now be influenced to reduce or eliminate the identified discrepancy. Perhaps enrollments can be increased, co-op stations identified, additional staff hired or a combination of these.

Many discrepancies usually can be identified in every educational program. Some of these will show wide gaps between "what is" and "what ought to be", others will be quite minor. Some gaps can be closed with internal reallocations of resources. Others will require new funding, additional personnel, and perhaps even facilities. The objective of the Discrepancy Analysis section is to identify as many program discrepancies as possible and the corresponding resources required to close these gaps.

The resolution of some discrepancies will have high priority. Others will not be as urgent. The table which follows lists a number of suggested areas in which you might find discrepancies.

Once a complete list of discrepancies has been identified the short and long term program objectives can be written. A program plan simply states objectives in terms of the resources needed and outcomes expected to close the gap between "what is" and "what ought to be".

Form PPD-1 provides the format for the identification of program discrepancies and the resources required to address the problem. The "comments" column might contain the essential points of information needed to state a formal program objective when your local plan of action is developed.

INSTRUCTIONS FOR COMPLETING

PPD-1

DISCREPANCY ANALYSIS

Columns 1 & 2 - List in these two columns the items of information being compared to identify discrepancies. These items will usually be facts and figures generated in the four analysis sections, but may consist of your summary of a particular item. Set forth below are some suggested items for discrepancy analysis.

Column 3 - Indicate the degree of discrepancy between "what is" and "what ought to be". Is it "great", "moderate", or "slight"?

Column 4 - Estimate, even if very roughly, the cost of correcting the deficiency. Part of the cost could come from Column 6 or 7 if new personnel of facilities will be needed.

Column 5 - List any funding available or potentially available from outside sources, or indicate that it would represent a budget increase.

Column 6 - State what the effect will be on existing personnel, or what types of new personnel will be needed.

Column 7 - State what the impact will be on existing facilities what type of new facilities will be needed and what community resources might be available.

Column 8 - State the degree to which the community is likely to accept a program to close the gap. Don't forget political considerations, student interests, etc.

Column 9 - Use this column to make any comments, to expand, or clarify the data. The column may also be used to give a priority weighting to the importance of solving the discrepancy.

DATA: DISCREPANCY ANALYSIS DATE: PPD-1

COMMUNITY:

COLUMN 1	COLUMN 2	COLUMN 3	COL.4	COL. 5	COLUMN 6	COLUMN 7	COLUMN 8	COLUMN 9
ITEM 1	ITEM 2	DEGREE OF DISCREPANCY	ADD'L COST	FUNDING AVAIL-ABLE	PERSONNEL	FACILITIES	PROGRAM ACCEPTABILITY	COMMENTS

79

EXAMPLES OF DISCREPANCY AREAS

ITEM 1	WHERE FOUND	VS.	ITEM 2	WHERE FOUND	PURPOSE
A. List the West Virginia and national job market trend statements for each program you have.	Job Market Analysis form JMA-1		A. Vocational Education Completions Trends Statements	Existing Programs Analysis form EPA-1	Find any program areas where the job trend is up and the completions trend is down, or vice versa.
B. List the local job market trends for each program.	Job Market Analysis form JMA-5		B. Vocational Education Completions Trends Statements	Existing Programs Analysis Form EPA-1	Find any program areas where the local job market trend is up and the completions trend is down or vice versa.
C. List the programs students are interested in taking.	Existing Programs Analysis, Student Interest Survey		C. List the programs you now offer.	Available	Find any programs you offer where student interest is very high or very low.
D. List for each program the degree of success graduates have had getting jobs.	Existing Programs Analysis. Graduate Follow-up Survey.		D. List the current enrollments and trends in that program.	Existing Programs Analysis form EPA-1.	Find any program area where graduates are having a hard time getting jobs, but completions trends are up, or graduates get jobs easily but completions trends are down.

EXAMPLES OF DISCREPANCY AREAS

ITEM 1	WHERE FOUND	VS.	ITEM 2	WHERE FOUND	PURPOSE
E. List the name and number and population trend of population sub-groups such as: total, disadvantaged, handicapped minority	Population Analysis form PA-1		E. List the number of completions trends for that sub-group.	Existing Programs Analysis form EPA-1	Find any group with a big gap between the % it represents of population in the area and % of enrollments and completions trends it represents.
F. Give the anticipated enrollments in vocational education 5 and 8 years from now.	Population Analysis Form PA-2, tempered by your judgement of other factors.		F. State the impact on available personnel, facilities, budget.	Resources Analysis form RA-1-4	If enrollments trends will be greatly up or down, what will be the impact on resources.
G. State the % and trend of graduates who sought work but would not get it.	Population Analysis form PA-3.		G. Determine the % and trend of enrollments in vocational education.	Existing Programs Analysis form EPA	If the trend of total high school graduates looking for work but unable to find it is up, is trend in vocational enrollments up too?

EXAMPLES OF DISCREPANCY AREAS

ITEM 1	WHERE FOUND	VS.	ITEM 2	WHERE FOUND	PURPOSE
H. List the new programs needed which are not now offered.	Job Market Analysis form JMA-1-5; Population Analysis form PA-2.		H. State the impact on personnel, facilities, budget	Resources Analysis forms RA-1-4	If you will need to change the list of programs offered, what is impact on resources?

USING DATA EFFECTIVELY

The purpose of this section of the manual is to help describe, interpret, and present data, ideas, and concepts more simply and effectively to develop needs assessment for vocational programs.

The body of this manual has presented methods for collecting needs assessment data from the various areas for which needs analysis should be made, so that effective program planning and development can take place. In utilizing any or all of the techniques described, a great quantity of information in a variety of formats will be obtained. Presenting the totality of the raw data when working with the advisory committee, school board, or the general public should be avoided. It will probably be neither read nor understood. Rather, the data should be presented in the most simplified method of communication and displayed so that the results are clear to the intended audience.

When selecting statistical techniques and displaying methodologies, the intended audience should be a primary consideration. The level of sophistication is determined by the audience's level of involvement in education. However, the simplest statistical techniques coupled with the most graphic display method is the best bet for keeping the communication gap to a minimum.

When compiling the body of a report in which sets of data are to be presented, if at all possible, only summarized statistical expressions such as mean scores, median age and average income should be utilized. If it is necessary, to include quantities of highly specific or even raw data in the report, include them in an appendix so that the average reader does not have to "wade"through them. When utilizing statistical expressions which indicate central tendency or spread, such as standard deviation, try to illustrate the

findings graphically so that no misunderstandings take place. Even the most experienced educational administrator forgets what standard deviation means after a few years on the "firing line"; so frequency charts, figure graphs, etc., can often best communicate a statistic that is important.

Obviously one cannot have illustrations or utilize statistics for every set of data. Sets of data should be selected that are of importance and appropriate methodologies should be used to summarize them.

Two basic formats for presenting data are tables and graphs. Each have advantages as well as disadvantages but when used together they tend to compliment each other. Tables are the most desirable of the two when there is a choice. Characteristics of a table are:

1. Each table should have a descriptive heading.
2. The table should consist of rows of items and columns of groups (and subgroups, if required).
3. Each row and column should be clearly labeled; when room is lacking for complete headings, abbreviations or symbols should be keyed at the bottom of the table.
4. The most important figures, e.g., totals and/or extreme values, should be highlighted by harder printing or underlining. Any especially significant figure (e.g., a grand total) should be indicated by double underlining or by placing it within a box.
5. Tables should have a neat, uncluttered appearance and ample margins, yet there should be enough information on each sheet so that dozens of pages are not needed for the report and continuity is maintained.
6. The data should be expressed in whole numbers or decimals rather than fractions and figures should be rounded off to the appropriate unit. The exactness of the figures (number of decimals, etc.) should be consistent and data should be lined up evenly in terms of the decimal points.
7. No vertical lines should appear on a table, any vertical separation should be accomplished by spacing.
8. All information needed to interpret the table should be supplied on the page where the table appears whenever possible.

It should be recognized that a needs assessment is only a beginning, the planning and implementation of solutions are yet to come. A number of points which deserve attention in summing up major concerns of a needs assessment are:

1. A needs assessment is never completed. It must be a continuous affair, and changes in needs are to be expected.

2. A discrepancy analysis is the documentation of a measurable difference between current and desired (or required) states of affairs. It is not enough to guess either where we are or where we should be--"we require hard empirical data for both polar positions of a need."

3. A need is not a solution. Preconceived solutions must be left out of statements of discrepancies, or they bias the outcome and restrict the use of innovative or creative ways to solve a problem.

4. In setting priorities on need areas, they might be judged by two criteria: (a) what does it cost to meet the need, and (b) what does it cost to ignore the need?

5. Be sure all partners to the educational endeavor are involved in selection of needs and decisions about them.

6. Never select instruments that place blame on any group, or that could be used to do so.

7. Reconcile discrepancies among viewpoints of different groups.

8. Outcomes for the future as well as for the present should be included, since "we should not attempt to capture the status quo and derive an education system to maintain that status."

Once the needs have been identified by the discrepancy analysis, they should be assigned priorities. The size of the deficiency may not be related to the importance of the needs. Items with small deficiencies may be rated as greater needs than items with bigger deficiencies.

The priority rating task can be given to the assessment committee or other concerned individuals for review. There are several factors to consider in the priority selection process.

1. Given the amount of funding available, which needs already have the most resources?
2. Utilize the data but do not be dominated by it.
3. If the resources, including personnel and facilities are not available, what would be the cost of securing the necessary resources?
4. Can the discrepancy be removed through a low-cost workshop or the use of a simple job aid or will extensive training materials and time be required.
5. Arrange the needs statements by categories.
6. Reconcile discrepancies among points of view of different groups about a particular need.

All needs are, in a sense, in competition with each other when the time comes to allocate finite resources to programs.

The prioritized information is used to develop current program objectives. By utilizing the summarization and the discrepancy analysis the prioritization of needs can be developed. In compiling data for a local region consideration must also be given to county, state or regional trends. The major reason for this, most local school districts do not contain industries or occupations in sufficient numbers to permit the projection of their future with any degree of competency. Another reason is mobility of the present day work force. A third reason for involving a larger area is that it is not possible to offer a complete range of vocational education programs in most existing local school districts.

Hopefully the Discrepancy Analysis has shown where gaps exist. The gaps after having been identified can be prioritized. Actually a great deal of effort has been expended to bring together the information generated by analyzing the various sections to improve decision-making and program plan development.

For example: The Existing Program Analysis provides data on enrollments, characteristics of programs, student interests and graduates follow-up. In utilizing this information with the Business and Industry Survey as to the National, State and Local Manpower picture projection can be made as to program expansion or possibility program reduction. If program expansion is deemed necessary the Resources Analysis can aid in determining the need for additional space, teacher or even provide data where space and which teachers could be available for new courses. The Patron Needs Analysis may indicate student, adults and parents are not interested in the new course and there might be the possibility of wasting financial resources.

This one small example of the implication for use of the data and information collected through a Comprehensive Needs Assessment. Consideration of this accumilation of information is essential if future projects are to be improved on the basis of past experiences.

Finally, as with any other study, the needs assessment should be reviewed in its entirety. Was the project worth the effort, time, and money that were expended on it? Where did problems occur? Should it be done again? What should be changed if another project were starting?

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APPENDIX

TIME MANAGEMENT PLAN

As a final activity in the design of the comprehensive needs assessment study a time management plan should be developed, completed, and agreed upon by the advisory committee. A plan is necessary because during the course of the study a number of different, yet related, tasks have to be accomplished by several of different people. The time management plan format (see example which follows) provides for:

Listing in sequence the major activities to be accomplished for the needs assessment.

Indicating the person or persons responsible for each task.

Defining the resultant product or indicator of accomplishment for each activity.

Placing the accomplishment of each needs assessment activity on a timeline using units of days, weeks, or months.

Once the advisory committee has been selected, the community informed of the study, and a time management plan developed, the project is ready to move forward into the major areas of data collecting and analysis.

TIME MANAGEMENT PLAN

Symbols: LD-Local Director S-Staff C-Committee

TASKS TO BE ACCOMPLISHED	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Select Committee - LD									
Orient Committee to overall needs assessment process - LD									
Develop or adapt survey assessment instruments - LD,S,C									
Reproduce instruments - S									
Administer needs assessment instruments - S School Students Parents School Personnel Business & Industry Other									
Analyze and document results - LD,C									
Draft needs assessment report - LD,C									
Complete report and program plan - LD,S,C									
Disseminate products and results of project - S									

SAMPLING PROCEDURES

There are numerous ways to sample the school populations. One way is to assess every student, teacher, parent and other relevant person, effected and served. This total population approach provides the most accurate data since little is left to chance; however, it is the most expensive and possibly the most time consuming way because of the expansiveness of the procedure. Because of the time considerations, the use of computer assisted scoring and analysis is required or at least a large number of assistants.

The method most often selected is the random sampling method. Random sampling occurs when each person has as much of a chance to be selected as any other person within a particular population. An example of random sampling is to compile a list of all students who belong to the population to be assessed. Somewhere around the middle of the list, select a name. From this point, count down eleven names and circle the eleventh one; repeat this process until you have worked through the list one time. If a larger sample is needed, continue working through the list until enough persons are selected. For true random sampling to occur, those persons selected the first time should remain on the list. At the end, the circled names will be the sample population of subjects to assess. If a computer is available, the selection of subjects can be performed with computer assistance. This is advised for county wide assessments but individual school assessments could use the manual method.

If a random sampling method is used, a relatively small number of persons can be representative of large populations. Around 10 percent of a population is generally assessed and this percentage can be much smaller than that, expecially, if large populations are involved. As long as the selected sample was determined using the random sampling technique there

are statistical methods that can be used to analyze the data. However, with total populations of less than 100, as with school staff assessments, the whole population is usually assessed. The ease and accuracy of information from using random sampling with the related statistics are strong arguments for using representative samples rather than whole populations. Of course, when conducting the assessment, one may want to combine the techniques and use the sampling procedures which best suits the circumstances.

A random numbers table can be used in the sampling procedure. To use the table, assign numbers to every member of the assessment population and then select those persons whose number appears on the table as the sample population. However, it is important that data is obtained from every member of the sample population. This data is considered to be more representative of the total population than data collected from 70 percent of the total population. The reason for this is that the population variable is controlled somewhat through the random selection with improved probability of obtaining data from all segments of the population. With a total population sample and only partial returns, one cannot infer general population characteristics since one is not certain of which segment or segments of the population is included in the returns. Therefore, a small random sample with full participation is more representative than partial participation from the total population.

The following is an example of one method to determine the sample size:

In a district with 350 high school students, it would be possible to have every student respond to the questionnaire with no special sampling strategy for students being required. However, in a district with 1,000 or more high school students, use of a sampling strategy is recommended since this would minimize costs and reduce the work involved in analyzing the data.

In determining the sample, the first questions to ask are, "Who must be sampled", "What size sample is sufficient for this survey" and "What is the expected rate of return". Also decide whether or not to divide the total population into several subpopulations. For instance, if data is to be collected on the attitudes of students toward a particular school program, students may be divided into several categories:

1. Student participants vs. non-participatns.
2. Students in one ethnic group vs. those in another.
3. Students at one grade level vs. students at another.

Thus, each group is treated as a subpopulation and a separate sample would be drawn from each of the subgroups. Keep in mind that the use of subpopulations requires a larger total sample size than that needed if the population were not broken down into smaller units.

If the sample population was for a county-wide needs assessment a smaller sample population would be required than if individual schools were to be compared. If individual schools are used for comparative purposes, a larger sample is needed since each individual school would be a subpopulation. (See Appendix for Determining Sample Size for Given Populations).

DETERMINING SAMPLE SIZE FOR GIVEN POPULATIONS

In the The NEA Research Bulletin, Vol. 38, No. 4, December 1960, p. 99, their formula for determining sample size based on the degree of accuracy and confidence desired, the parent population size, and the population proportion desired was developed.

$$s = X^2NP(1-P) \,/\{d^2(N-1)+X^2P(1-P)\}$$

where

s = required sample size

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level

N = the population size

P = the population proportion

d = the degree of accuracy expressed as a proportion

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TABLE

Table for Determining Sample Size from a Given Population
- Based on NEA Small Sample Techniques -

N	S p=.10	S p=.05	S p=.01	S p=.001
10	10	10	10	10
20	19	19	19	20
30	27	28	29	29
40	35	36	38	39
50	42	44	47	48
60	49	52	55	57
70	56	59	63	66
80	62	66	71	75
90	68	73	79	83
100	73	80	87	92
110	78	86	94	100
120	83	92	102	108
130	88	97	109	116
140	92	103	116	124
150	97	108	122	132
160	101	113	129	140
170	105	118	135	147
180	108	123	142	154
190	112	127	148	162
200	115	132	154	169
210	118	136	160	176
220	122	140	165	183
230	125	144	171	190
240	127	148	176	197
250	130	152	182	203
260	133	155	187	210
270	135	159	192	216
280	138	162	197	223
290	140	165	202	229
300	143	169	207	235
320	147	175	216	247
340	151	181	225	259
360	155	186	234	270
380	158	191	242	281
400	162	196	250	292
420	165	201	257	303
440	168	205	265	313
460	171	210	272	323
480	173	214	279	333
500	176	217	285	342

Note---N is population size.

S is sample size.

TABLE continued

N	S p=.10	S p=.05	S p=.01	S p=.001
550	182	226	301	365
600	187	234	315	386
650	191	242	329	406
700	195	248	341	425
750	199	254	352	443
800	202	260	363	460
850	205	265	373	476
900	208	269	382	492
950	211	274	391	506
1000	213	278	399	520
1100	217	285	414	546
1200	221	291	427	570
1300	224	297	440	591
1400	227	302	450	611
1500	229	306	460	629
1600	232	310	469	646
1700	234	313	477	662
1800	235	317	485	676
1900	237	320	492	690
2000	238	322	498	703
2200	241	327	510	726
2400	243	331	520	746
2600	245	335	529	765
2800	247	338	537	781
3000	248	341	543	796
3500	251	346	558	827
4000	254	351	569	852
4500	255	354	578	873
5000	257	357	586	890
6000	259	361	598	918
7000	261	364	606	938
8000	262	367	613	954
9000	263	368	618	967
10000	263	370	622	977
15000	266	375	635	1010
20000	267	377	642	1027
30000	268	379	649	1045
40000	269	380	653	1054
50000	269	381	655	1060
75000	270	382	658	1068
100000	270	383	659	1071

Note---N is population size.

S is sample size.